IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re Application of

Alexander T. SCHWARM

Serial No. 10/765,921

Group Art Unit:

Filed: January 29, 2004

Examiner:

For: SYSTEM, METHOD, AND MEDIUM FOR MONITORING PERFORMANCE OF AN

ADVANCED PROCESS CONTROL SYSTEM

INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached form PTO-1449. It is respectfully requested that the documents be expressly considered during the prosecution of this application, and that the documents be made of record therein and appear among the "References Cited" on any patent to issue therefrom. Copies of any cited U.S. Patents and U.S. Patent Publications are not being submitted in accordance with 37 CFR 1.98(a)(2)(i).

This Information Disclosure Statement is being filed within three months of the U.S. filing date OR before the mailing date of a first Office Action on the merits. No certification or fee is required.

In accordance with 37 C.F.R. § 1.97(g) and (h), the filing of this IDS should not be construed as a representation that a search had been made or that information cited is, or is considered to be, material to patentability as defined in 37 C.F.R.§ 1.56 (b), or that any cited document listed or attached is (or constitutes) prior art. Unless otherwise indicated, the date of

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publication indicated for an item is taken from the face of the item, and Applicant reserves the right to prove that the date of publication is in fact different.

The references listed on Sheet 1 of the attached PTO-1449 Forms were cited in a patentability investigation and/or a corresponding foreign or PCT application relating to the above-referenced application. The remaining references are from potentially related patent applications, and possibly other sources.

No fee is believed to be required; however, the Commissioner is authorized to charge any deficiency in any fees pursuant to 37 CFR § 1.17 associated with this communication and to credit any excess payment to Deposit Account No. 08-0219.

Respectfully submitted,

WILMER CUTLER PICKERING HALE AND DORR LLP

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Date:

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SERIAL NO. ATTY, DOCKET NO. INFORMATION DISCLOSURE 007733 USA/FPS/MMCS/APC 10/765,921 CITATION IN AN **APPLICATION** (PTO-1449) APPLICANT Alexander T. SCHWARM FILING DATE **GROUP** January 29, 2004 U.S. PATENT DOCUMENTS **EXAMINER'S** FILING **INITIALS** PATENT NO. DATE NAME **CLASS SUBCLASS** DATE 5,642,296 06/24/97 Saxena 07/29/93 5,646,870 07/08/97 Krivokapic et al. 02/13/95 5,719,796 02/17/98 Chen 12/04/95 5,787,269 07/28/98 Hyodo 09/19/95 5,859,964 01/12/99 Wang et al. 10/25/96 5,960,185 09/28/99 Nguyen 06/24/96 6,210,983 B1 04/03/01 Atchison et al. 06/15/99 6,360,184 B1 03/19/02 Jacquez 03/26/97 6,397,114 B1 05/28/02 Eryurek et al. 05/03/99 FOREIGN PATENT DOCUMENTS **EXAMINER'S** PATENT NO. DATE COUNTRY CLASS SUBCLASS **INITIALS** Translation Yes WO 01/25865 A1 04/12/01 WO X OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) Chang, Norman H. and Costas J. Spanos. February 1991. "Continuous Equipment Diagnosis Using Evidence Integration: An LPCVD Application." IEEE Transactions on Semiconductor Manufacturing, v. Boning, Duane S., Jerry Stefani, and Stephanie W. Butler. February 1999. "Statistical Methods for Semiconductor Manufacturing." Encyclopedia of Electrical Engineering, J. G. Webster, Ed. "Semiconductor Manufacturing: An Overview." http://users.ece.gatech.edu/~gmay/overview.html **EXAMINER DATE CONSIDERED**

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	APPLIC	CATION					
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EXAMINER'S INITIALS	PATENT NO.	DATE		NAME	CLASS	SUBCLASS	FILING DATE
	3,205,485	09/07/65	Noltingk		02/100	000000000000000000000000000000000000000	10/21/60
	3,229,198	01/11/66	Libby			•	09/28/62
	3,767,900	10/23/73	Chao et al.		<u> </u>		06/23/71
	3,920,965	11/18/75	Sohrwardy				03/04/74
	4,000,458	12/28/76	Miller et al.				08/21/75
	4,207,520	06/10/80	Flora et al.				04/06/78
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	4,302,721	11/24/81	Urbanek et al.	<u> </u>			05/15/79
	4,368,510	01/11/83	Anderson				10/20/80
	4,609,870	09/02/86	Lale et al.				09/13/84
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INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449)		ATTY. DOCKET N 007733 USA/FPS/		SERIAL N 10/765,			
	(=			APPLICANT Alexander T. S	CHWARM	<u> </u>	
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		1	U.S. PATENT DO	CUMENTS		.l	
EXAMINER'S INITIALS	PATENT NO.	DATE		NAME	CLASS	SUBCLASS	FILING DATE
	5,270,222	12/14/93	Moslehi	.			12/31/90
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	5,295,242	03/15/94	Mashruwala et	al.			11/02/90
	5,309,221	05/03/94	Fischer et al.				12/31/91
	5,329,463	07/12/94	Sierk et al.				01/13/93
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-	5,347,446	09/13/94	Iino et al.				02/10/92
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SERIAL NO. ATTY, DOCKET NO. INFORMATION DISCLOSURE 007733 USA/FPS/MMCS/APC 10/765,921 CITATION IN AN APPLICATION (PTO-1449) APPLICANT Alexander T. SCHWARM FILING DATE **GROUP** January 29, 2004 **U.S. PATENT DOCUMENTS EXAMINER'S** FILING **INITIALS** PATENT NO. DATE NAME **CLASS** SUBCLASS DATE 5,546,312 08/13/96 02/24/94 Mozumder et al. 5,553,195 09/03/96 Meijer 09/29/94 5,586,039 12/17/96 Hirsch et al. 02/27/95 5,599,423 02/04/97 Parker et al. 06/30/95 5,602,492 02/11/97 Cresswell et al. 04/28/94 5,603,707 02/18/97 Trombetta et al. 11/28/95 5,617,023 04/01/97 Skalski 02/02/95 5,627,083 05/06/97 Tounai 05/12/95 5,629,216 05/13/97 Wijaranakula et al. 02/27/96 5,649,169 07/15/97 Berezin et al. 06/20/95 5,654,903 08/05/97 Reitman et al. 11/07/95 5,655,951 08/12/97 Meikle et al. 09/29/95 5,657,254 08/12/97 Sierk et al. 04/15/96 5,661,669 08/26/97 Mozumder et al. 06/07/95 5,663,797 09/02/97 Sandhu 05/16/96 5,664,987 09/09/97 Renteln 09/04/96 5,665,199 09/09/97 Sahota et al. 06/23/95 5,666,297 09/09/97 Britt et al. 05/13/94 5,667,424 09/16/97 Pan 09/25/96 5,674,787 10/07/97 Zhao et al. 01/16/96 5,694,325 12/02/97 Fukuda et al. 11/22/95 5,698,989 12/16/97 Nulman 09/13/96 5,719,495 02/17/98 Moslehi 06/05/96 5,735,055 04/07/98 Hochbein et al. 04/23/96 5,740,429 04/14/98 07/07/95 Wang et al. **EXAMINER** DATE CONSIDERED

ATTY, DOCKET NO. SERIAL NO. INFORMATION DISCLOSURE 007733 USA/FPS/MMCS/APC 10/765,921 CITATION IN AN APPLICATION (PTO-1449) APPLICANT Alexander T. SCHWARM FILING DATE GROUP January 29, 2004 **U.S. PATENT DOCUMENTS EXAMINER'S** FILING INITIALS PATENT NO. DATE **CLASS SUBCLASS** NAME DATE 5,751,582 05/12/98 Saxena et al. 09/24/96 5,754,297 05/19/98 Nulman 04/14/97 5,761,064 06/02/98 La et al. 10/06/95 5,761,065 06/02/98 Kittler et al. 03/30/95 5,764,543 06/09/98 Kennedy 06/16/95 5,777,901 07/07/98 Berezin et al. 09/29/95 5,787,021 07/28/98 Samaha 12/18/95 5,808,303 09/15/98 Schlagheck et al. 01/29/97 5,812,407 09/22/98 Sato et al. 08/12/97 5,823,854 10/20/98 Chen 05/28/96 5,825,913 10/20/98 Rostami et al. 07/18/95 5,828,778 10/27/98 Hagi et al. 07/12/96 5,832,224 11/03/98 Fehskens et al. 06/14/96 5,838,595 11/17/98 Sullivan et al. 11/25/96 12/01/98 5,844,554 Geller et al. 09/17/96 5,857,258 01/12/99 Penzes et al. 05/12/94 5,859,975 01/12/99 Brewer et al. 08/09/96 5,862,054 01/19/99 Li 02/20/97 5,863,807 01/26/99 Jang et al. 03/15/96 5,867,389 02/02/99 Hamada et al. 11/26/96 5,870,306 02/09/99 Harada 06/13/97 5,883,437 03/16/99 Maruyama et al. 12/28/95 5,889,991 03/30/99 Consolatti et al. 12/06/96 5,901,313 05/04/99 Wolfe et al. 09/02/97 5,903,455 05/11/99 Sharpe, Jr. et al. 12/12/96 5.910.011 06/08/99 Cruse 05/12/97 5,910,846 06/08/99 Sandhu 08/19/97 **EXAMINER** DATE CONSIDERED

ATTY, DOCKET NO. SERIAL NO. INFORMATION DISCLOSURE 007733 USA/FPS/MMCS/APC 10/765,921 CITATION IN AN **APPLICATION** (PTO-1449) APPLICANT Alexander T. SCHWARM FILING DATE **GROUP** January 29, 2004 **U.S. PATENT DOCUMENTS EXAMINER'S** FILING PATENT NO. **INITIALS** DATE NAME **CLASS SUBCLASS** DATE 5.912,678 06/15/99 Saxena et al. 04/14/97 5,916,016 06/29/99 Bothra 10/23/97 5,923,553 07/13/99 Yi 10/05/96 5,926,690 07/20/99 Toprac et al. 05/28/97 5,930,138 07/27/99 Lin et al. 09/10/97 5,940,300 08/17/99 Ozaki 05/08/97 5,943,237 08/24/99 Van Boxem 10/17/97 5,960,214 09/28/99 Sharpe, Jr. et al. 12/04/96 5,961,369 10/05/99 Bartels et al. 06/04/98 5,963,881 10/05/99 Kahn et al. 10/20/97 5,978,751 11/02/99 Pence et al. 02/25/97 5,982,920 11/09/99 Tobin, Jr. et al. 01/08/97 6,002,989 12/14/99 Shiba et al. 04/01/97 6,017,771 01/25/00 Yang et al. 04/27/98 6,036,349 03/14/00 Gombar 07/26/96 6,041,263 03/21/00 Boston et al. 10/01/97 6,041,270 03/21/00 Steffan et al. 12/05/97 6,054,379 04/25/00 Yau et al. 02/11/98 6,064,759 05/16/00 Buckley et al. 11/06/97 6,072,313 06/06/00 Li et al. 06/17/97 6,074,443 06/13/00 Venkatesh et al. 01/29/98 6,077,412 06/20/00 Ting et al. 10/30/98 6,078,845 06/20/00 Friedman 11/25/96 6,094,688 07/25/00 Mellen-Garnett et al. 03/12/98 6,097,887 08/01/00 Hardikar et al. 10/27/97 6,108,092 08/22/00 Sandhu 06/08/99 6,111,634 08/29/00 Pecen et al. 05/28/97 6,112,130 08/29/00 Fukuda et al. 10/01/97 **EXAMINER DATE CONSIDERED**

ATTY, DOCKET NO. SERIAL NO. INFORMATION DISCLOSURE 007733 USA/FPS/MMCS/APC 10/765,921 CITATION IN AN APPLICATION (PTO-1449) APPLICANT Alexander T. SCHWARM FILING DATE **GROUP** January 29, 2004 U.S. PATENT DOCUMENTS **EXAMINER'S FILING** PATENT NO. **INITIALS** DATE NAME **CLASS SUBCLASS** DATE 6,127,263 10/03/00 Parikh 07/10/98 6,128,016 10/03/00 Coelho et al. 12/20/96 6,136,163 Cheung et al. 10/24/00 03/05/99 6,141,660 10/31/00 Bach et al. 07/16/98 6,143,646 11/07/00 Wetzel 06/03/97 6,148,099 11/14/00 Lee et al. 07/03/97 Funk et al. 6,148,239 11/14/00 12/12/97 6,148,246 11/14/00 Kawazome 06/10/98 6,150,664 11/21/00 06/29/99 Su 6,159,075 12/12/00 Zhang 10/13/99 6,159,644 12/12/00 Satoh et al. 03/06/96 12/12/00 6,161,054 B1 Rosenthal et al. 09/17/98 01/02/01 6,169,931 B1 Runnels 07/29/98 6,172,756 B1 01/09/01 Chalmers et al. 12/11/98 6,173,240 B1 01/09/01 Sepulveda et al. 11/02/98 6,175,777 B1 01/16/01 Kim 01/16/98 6,178,390 B1 01/23/01 Jun 09/08/98 6,183,345 B1 02/06/01 Kamono et al. 03/20/98 6,185,324 B1 02/06/01 Ishihara et al. 01/31/95 6,191,864 B1 02/20/01 02/29/00 Sandhu 6,192,291 B1 02/20/01 Kwon 10/08/98 6,197,604 B1 03/06/01 Miller et al. 10/01/98 6,204,165 B1 03/20/01 Ghoshal 06/24/99 6,211,094 B1 04/03/01 Jun et al. 08/23/99 6,214,734 B1 04/10/01 Bothra et al. 11/20/98 04/17/01 6,217,412 B1 Campbell et al. 08/11/99 04/17/01 6,219,711 B1 Chari 10/01/97 6,222,936 B1 04/24/01 Phan et al. 09/13/99 **EXAMINER DATE CONSIDERED**

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INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449)		ATTY. DOCKET NO 007733 USA/FPS/M		SERIAL 1 10/765,			
				APPLICANT Alexander T. SC	HWARM		
				FILING DATE January 29, 2004		GROUP	
		τ	J.S. PATENT D	OCUMENTS			<u> </u>
EXAMINER'S INITIALS	PATENT NO.	DATE		NAME	CLASS	SUBCLASS	FILING DATE
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INFORMATION DISCLOSURE		ATTY. DOCKET NO. SERIAL NO. 007733 USA/FPS/MMCS/APC 10/765,921		O.			
	CITATION	IN AN		007733 00701 10701	vico//ti c	10/705,5	721
	APPLICA	TION					
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				FILING DATE		GROUP	
				January 29, 2004			
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EXAMINER'S INITIALS	PATENT NO.	DATE		NAME	CLASS	SUBCLASS	FILING DATE
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SERIAL NO. ATTY. DOCKET NO. INFORMATION DISCLOSURE 007733 USA/FPS/MMCS/APC 10/765,921 CITATION IN AN **APPLICATION** (PTO-1449) APPLICANT Alexander T. SCHWARM FILING DATE **GROUP** January 29, 2004 **U.S. PATENT DOCUMENTS EXAMINER'S** FILING INITIALS PATENT NO. DATE NAME CLASS **SUBCLASS** DATE 2002/0070126 A1 06/13/02 Sato et al. 09/19/01 2002/0077031 A1 06/20/02 Johannson et al. 07/06/01 2002/0081951 A1 06/27/02 Boyd et al. 02/20/02 2002/0089676 A1 07/11/02 Pecen et al. 04/26/00 2002/0102853 A1 08/01/02 Li et al. 12/20/01 2002/0107599 A1 08/08/02 Patel et al. 01/25/01 2002/0107604 A1 08/08/02 Riley et al. 12/06/00 6,435,952 B1 08/20/02 Boyd et al. 06/30/00 6,438,438 B1 08/20/02 Takagi et al. 01/02/98 2002/0113039 A1 08/22/02 Mok et al. 02/16/01 6,440,295 B1 08/27/02 Wang 02/04/00 6,442,496 B1 08/27/02 Pasadyn et al. 08/08/00 2002/0127950 A1 09/12/02 Hirose et al. 03/08/01 2002/0128805 A1 09/12/02 Goldman et al. 12/26/00 6,455,937 B1 09/24/02 Cunningham 03/17/99 2002/0149359 A1 10/17/02 Crouzen et al. 08/18/01 10/22/02 6,470,230 B1 Toprac et al. 01/04/00 6,479,902 B1 11/12/02 Lopatin et al. 06/29/00 6,479,990 B2 11/12/02 Mednikov et al. 06/18/01 6,482,660 B2 11/19/02 Conchieri et al. 03/19/01 6,486,492 B1 11/26/02 Su 11/20/00 6,492,281 B1 12/10/02 Song et al. 09/22/00 2002/0185658 A1 12/12/02 Inoue et al. 06/14/01 2002/0193902 A1 12/19/02 Shanmugasundram et al. 06/18/02 2002/0197745 A1 12/26/02 Shanmugasundram et al. 08/31/01 2002/0197934 A1 12/26/02 Paik 11/30/01 2002/0199082 A1 12/26/02 Shanmugasundram et al. 06/18/02 **EXAMINER DATE CONSIDERED**

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